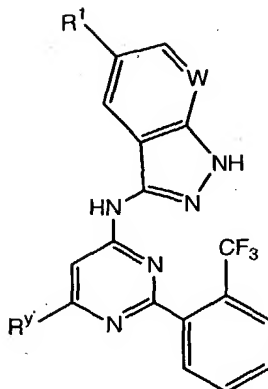


CLAIMS

We claim:

1. A compound of formula I:



I

or a pharmaceutically acceptable salt thereof, wherein:

W is nitrogen or CH;

R¹ is selected from hydrogen or fluorine; and

R^y is a C₁₋₄ aliphatic group, optionally substituted with N(R²)₂ or a 5-6 membered saturated ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, or sulfur, wherein:

each R² is independently selected from hydrogen or a C₁₋₃ aliphatic group optionally substituted with OH, N(R³)₂, or a 5-6 membered saturated ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, or sulfur; and wherein:

each R³ is independently selected from hydrogen or a C₁₋₃ aliphatic group;

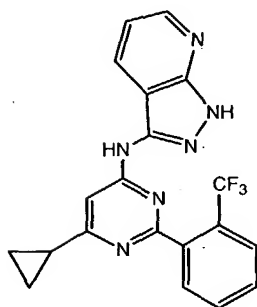
provided that:

when R¹ is hydrogen and W is CH, then R^y is other than methyl.

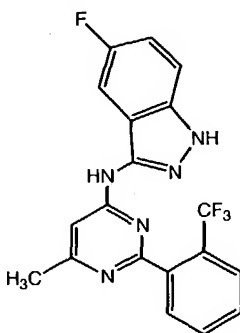
2. The compound of claim 1, wherein R^y is a C₁₋₄ aliphatic group.

3. The compound of claim 2, wherein R^y is selected from methyl, ethyl, cyclopropyl, *tert*-butyl, or isopropyl.

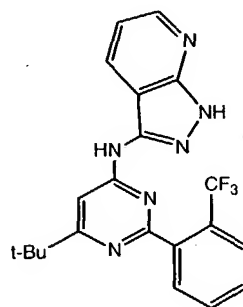
4. The compound according to claim 3, wherein R^y is selected from methyl, cyclopropyl, or *tert*-butyl.
5. The compound according to claim 1, wherein W is nitrogen.
6. The compound according to claim 1, wherein W is CH.
7. The compound according to claim 1, wherein R^1 is hydrogen.
8. The compound according to claim 1, wherein R^1 is fluorine.
9. The compound according to claim 1, wherein R^y is a C_{1-4} aliphatic group substituted with a 6-membered saturated ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, or sulfur.
10. The compound according to claim 9, wherein R^y is a C_{1-4} aliphatic group substituted with a morpholinyl, piperidinyl, or piperazinyl ring
11. The compound according to claim 1, wherein R^y is a C_{1-4} aliphatic group substituted with $N(R^2)_2$.
12. A compound selected from the group consisting of:



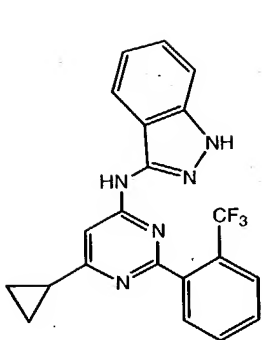
I-1



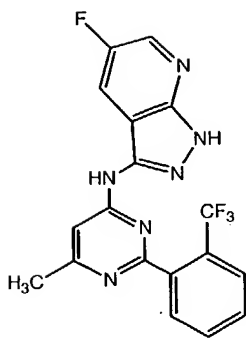
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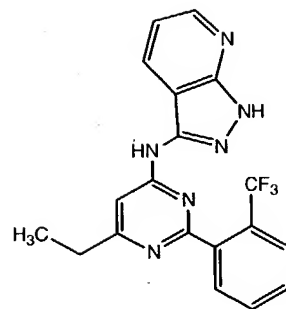
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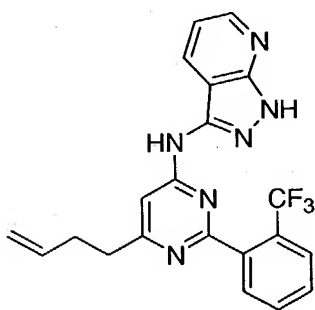
I-4



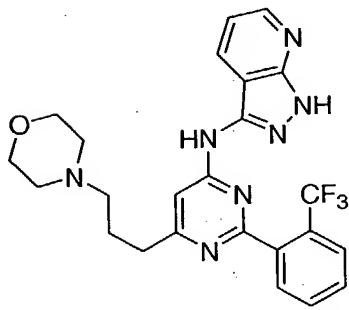
I-5



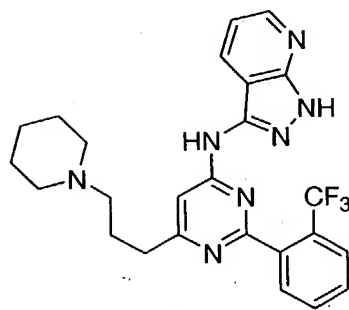
I-6



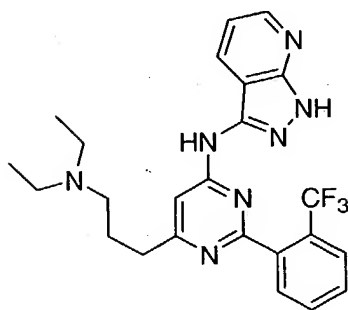
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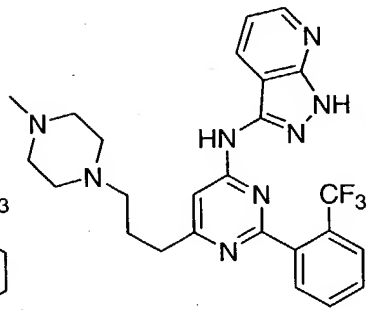
I-8



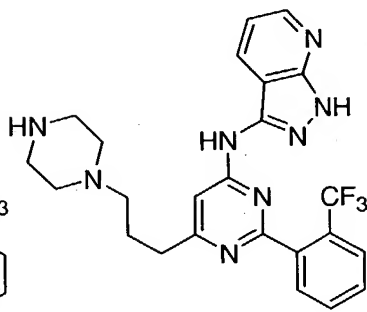
I-9



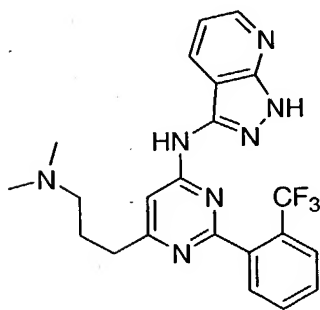
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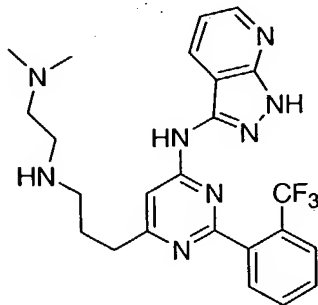
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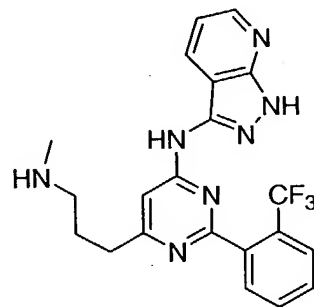
I-12



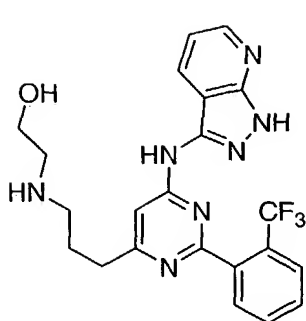
I-13



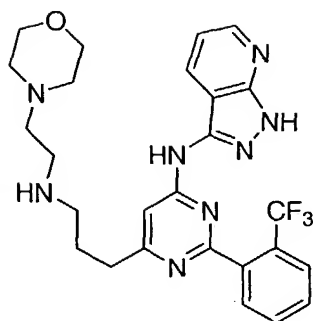
I-14



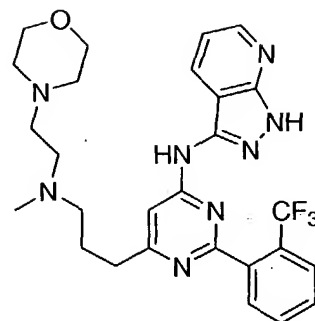
I-15



I-16



I-17



and I-18.

13. A pharmaceutically acceptable composition comprising a compound according to claim 1, and a pharmaceutically acceptable carrier, adjuvant, or vehicle.

14. The composition according to claim 13, additionally comprising an additional therapeutic agent selected from a treatment for Alzheimer's Disease (AD), a treatment for Parkinson's Disease, an agent for treating Multiple Sclerosis (MS), a treatment for asthma, an anti-inflammatory agent, an immunomodulatory or immunosuppressive agent, a neurotrophic factor, an agent for treating stroke, an agent for treating cardiovascular disease, an antidepressant, an anti-psychotic agent, or an agent for treating diabetes.

15. A method of inhibiting GSK3 kinase activity in a biological sample, comprising the step of contacting said biological sample with:

- a) a composition according to claim 13; or
- b) a compound according to claim 1.

16. A method of GSK3 kinase activity in a patient, comprising the step of administering to said patient:

- a) a composition according to claim 13; or
- b) a compound according to claim 1.

17. A method of treating an autoimmune disease, an inflammatory disease, a metabolic disorder, a psychiatric disorder, diabetes, an angiogenic disorder, tauopathy, a neurological or neurodegenerative disorder, a spinal cord injury, glaucoma, baldness, or a

cardiovascular disease, in a patient in need thereof, comprising administering to said patient a composition according to claim 13.

18. The method according to claim 17, wherein said disease, disorder, or condition is selected from allergy, asthma, diabetes, Alzheimer's disease, Huntington's disease, Parkinson's disease, AIDS-associated dementia, amyotrophic lateral sclerosis (ALS, Lou Gehrig's disease), multiple sclerosis (MS), an injury due to head trauma, schizophrenia, anxiety, bipolar disorder, tauopathy, a spinal cord or peripheral nerve injury, myocardial infarction, cardiomyocyte hypertrophy, glaucoma, attention deficit disorder (ADD), depression, a sleep disorder, reperfusion/ischemia, stroke, an angiogenic disorder, or baldness,

19. The method according to claim 18, wherein said disease, disorder, or condition is stroke.

20. The method according to claim 18, wherein said disease, disorder, or condition is Alzheimer's disease.

21. The method according to claim 17, wherein said disorder is a neurological or neurodegenerative disorder.

22. A method of decreasing sperm motility in a male patient comprising administering to said patient a composition according to claim 13.

23. The method according to claim 17, comprising the additional step of administering to said patient an additional therapeutic agent selected from a treatment for Alzheimer's Disease (AD), a treatment for Parkinson's Disease, an agent for treating Multiple Sclerosis (MS), a treatment for asthma, an anti-inflammatory agent, an immunomodulatory or immunosuppressive agent, a neurotrophic factor, an agent for treating stroke, an agent for treating cardiovascular disease, an antidepressant, an anti-psychotic agent, or an agent for treating diabetes, wherein:

said additional therapeutic agent is appropriate for the disease being treated; and

said additional therapeutic agent is administered together with said composition as a single dosage form or separately from said composition as part of a multiple dosage form.